REMARKS

Status of the Application

In the Office Action, Claims 10-32 were rejected. In the present Response, claims 10 and 29 have been amended so that claims 10-32 are pending.

Claim 10 has been amended to more clearly indicate that the composition utilized in accordance with the presently claimed repair coating process is a powder coating composition containing mean powder particle sizes of from 1 to about 90 μm. Claim 10 is also being amended to indicate that the powder coating composition is applied directly to the area being repaired. Finally, claim 10 is being amended to clearly indicate that the near infrared radiation being utilized in accordance with the claimed process is emitted from a radiation radiator. Support for these amendments can be found at page 7, lines 18-31 and at page 9, line 24 to page 10, line 4 and in the Example set forth at page 13.

Claim 29 has been amended to indicate that the powder contains mean powder particle sizes of from 1 to 40 μm. Support for this amendment can be found at page 7, lines 18-31. No new matter has been added.

Rejection under 35 U.S.C. §103

Claims 10-32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,960,611 to Fujisawa et al. The Examiner asserts that "[i]t would have been obvious to one having ordinary skill in the art to have selected the portion of Fujisawa's range that corresponds to the claimed range."

The Examiner reasserts the same arguments issued in the Non-Final Office Action mailed October 8, 2003. In the October Office Action, the Examiner asserted that "Fujisawa et al. teaches a method of repairing a defect on a multi-layer automotive paint coating (col.1, lines 10-20) by applying a powder coating to the defective area and using infrared radiation to melt and cure the powder coating (col.2, line 32; col. 3, lines 14-18; col. 7, line 20)." The Examiner further asserts that "Fujisawa's teaching of 'infrared' range, defined as 700nm –1 mm, overlaps Applicant's claimed range of 'near infrared' in claim 30", and "[o]verlapping ranges are *prima facie* evidence of obviousness."

Applicants, however, respectfully assert that the Examiner has failed to establish a prima facie case of obviousness, and therefore Fujisawa does not render Applicants' claimed invention obvious.

Section 2142 of the MPEP indicates that a *prima facie* case of obviousness is only established when there 1) is some suggestion or motivation to modify or combine the cited prior art references, 2) is a reasonable expectation of successfully producing the claimed invention via such a combination, and 3) all of the claim limitations are either taught, or suggested by the cited prior art. Section 2143 further explains that "[t]he teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure."

Applicants, however, respectfully assert that Fujisawa does not teach or suggest ALL of the limitations of Applicants' claimed invention.

More specifically, Fujisawa does not teach or suggest a powder coating composition containing particle sizes ranging from 1 to about 90 μm. Instead, as Applicants previously pointed out, Fujisawa is concerned with solid, semisolid, or liquid coating compositions (see column 3, lines 13-14). Fujiaswa indicates at column 3, lines 15-16 that the term "solid coating composition" includes semisolid compositions, and further indicates at column 7, lines 18-30 that the solid compositions also include pelletized repair coating compositions.

Moreover, Fujisawa further indicates at column 3, lines 5-7 and column 7, lines 18-30 that the solid coating composition (which includes the pelletized and semisolid compositions) is placed over the cavity being repaired and melted with a laser beam so as to cause the melted composition to flow into the cavity. Fujisawa further indicates that after melting and flowing into the cavity, the solid coating composition (which include semi-solid and pelletized compositions) is cured via a second laser beam irradiation step. That is, two separate steps are used to melt and then cure the solid coating composition.

In contrast, the powder coating composition of Applicants' claimed invention is not applied over, but rather is applied directly to the area being repaired. As the first melting step is eliminated, Applicants' claimed powder coating repair process enables a damaged/defective coating to be more easily and quickly repaired. Indeed, Fujisawa acknowledges at column 7, lines 60-64 that defects can be

remedied more easily when a coating composition is applied directly to the cavity being repaired and does not have to be first melted in accordance with his solid composition process.

While Applicants acknowledge that Fujisawa indicates at column 3, lines 10-12 that his liquid coating composition can be placed in the cavity in a dropwise fashion, Applicants respectfully assert that a liquid coating is not a powder coating in accordance with Applicants' claimed invention. Indeed, a person of ordinary skill in the art knows that a powder coating composition, including the aqueous powder coating slurry described by Applicants, forms a layer of powder particles on the surface of a substrate to which the powder coating is applied and is not applied to the surface as a liquid. It is only upon being contacted with the heat of, for example, an NIR radiator that the powder particles become a melted liquid that subsequently crosslinks to form the desired coating. A person of ordinary skill in the art further knows that various methods, including electrostatic application methods, can be used to apply the powder particles of a powder coating composition to a vertical surface. Finally, a person of ordinary skill in the art knows that an aqueous powder coating slurry forma coating of powder particles on the surface to which the coating is applied and does not go on as a liquid, wherein the liquid flashes off as the aqueous powder coating slurry is sprayed onto the substrate.

In sum, Applicants respectfully assert the solid (including semisold and pelletized) and liquid compositions are not powder coating compositions in accordance with Applicants' claimed invention because 1) the powder coating compositions of Applicants' claimed invention are applied directly to—and NOT over—the area being repaired, and 2) a person of ordinary skill in the art understands that the powder coating compositions in accordance with Applicants' claimed invention are applied to the surface being repaired as a layer of powder particles that do not become liquid until melted via an NIR radiator.

Furthermore, Fujisawa does not disclose the NIR radiator in accordance with Applicants' claimed invention. Specifically, Applicants direct the Examiner's attention to column 7, lines 48-53 wherein Fujisawa indicates that a machining laser beam is used to cure the liquid coating composition, and column 6, lines 3-5 wherein Fujisawa indicates that a laser beam is used to cure the solid coating composition (including the semisolid and pelletized compositions). Neither a machining laser

beam, nor a laser beam, however, are NIR radiators. In fact, Fujisawa does not contain a single disclosure or suggestion anywhere therein that indicates an NIR radiator in accordance with Applicants' claimed invention can be used to cure the liquid and solid (including semisold and pelletized) compositions disclosed by Fujisawa.

Finally, Applicants respectfully assert that Fujisawa fails to disclose the 1 to about 90 μm particle size range of the powder coating composition of Applicants' claimed invention. Although the Examiner previously admitted in the October 8, 2003 Office Action that "Fujisawa does not specifically teach the particle size of the powder repair coating", the Examiner took the position that selecting "an optimum size of particle would have been within the skill of an ordinary artisan based upon the size of the defect to be filled and the strength and length of time desired for treatment by IR since surface area of powder particles will affect the amount of radiation time needed." The Examiner further asserted that "[i]t is well settled that determination of optimum values of cause effective variables such as these process parameters is within the skill of one practicing in the art."

Applicants, however, respectfully assert that in accordance with MPEP Section 2144.05, paragraph II. B., the variable "must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine expermintation." For example, in *In re Antoine* the prior art did not recognize treatment capacity as being a function of the ratio of tank volume to contractor ratio, and therefore the optimized tank volume to contractor area of 0.12 gal/ft^2 that was being claimed was not a result-effective variable. 559 F.2d 618 (CCPA 1977). As Fujisawa does not recognize the size of the particles of the powder coating composition of Applicants' claimed process to be a function of the size of the defect being repaired, strength of IR being used, and/or length of exposure of the coating to IR, the particle size being claimed is not a result-effective variable that is subject to optimization.

As Fujisaw fails to teach or suggest All of the limitations of Applicants' claimed invention, Applicants respectfully assert that the Examiner has failed to establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection.

SUMMARY

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. In order to expedite disposition of this case, the Examiner is invited to contact Applicants' representative at the telephone number below to resolve any remaining issues. Should there be a fee due which is not accounted for, please charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,

Hilmar L. Fricke
Reg. No. 22,384
Attorney for Applicants
Telephone No.: (302) 984-6058
Facsimile: (302) 658-1192

Date: October 12, 2004